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Department of Energy

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Mr. Gary Baughman
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Colorado Department of Health
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Gentlemen:

Enclosed for your review are proposals for streamlining current IAG activities for Operable Unit 7 (OU-7), Present Landfill, and Operable Unit 11 (OU-11), West Spray Field. The intent of both proposals is to streamline the current IAG schedules which would result in a more efficient, cost effective strategy for final disposition of both OUs without impacting the ability to assess risk from these OUs to human health and the environment. An additional advantage of this would be the elimination of some IAG Table 6 milestones as well as accelerating many of the others.

Maximum optimization of these proposals is dependent upon implementation of these strategies as soon as possible. Your timely review and comment on the attached proposals will create the opportunity to maximize the potential benefits from both. DOE will schedule meetings between the IAG signatories to formalize scope and deliverable dates as soon as an agreement to implement these strategies is received.

If you have any questions please call R. H. Birk of my staff at 966-5921 or digital pager 966-4000/3600.

Sincerely,

James K. Hartman
Assistant Manager for Transition
and Environmental Restoration

Enclosure

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cc w/Enclosure:
A. Rampertaap, EM-453
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Administrative Record File

Process Improvement Proposal For Operable Unit 7, Present Landfill (OU 7).

Current Condition.

1. OU 7 is classified per the IAG as a "RCRA lead" OU. The implications of this designation are that the Colorado Department of Health (CDH) is the lead regulatory agency and the process by which this OU is investigated has been broken into two separate phases of investigation. The initial phase investigates the nature and extent of contamination within the "source and soils". This has been interpreted as the landfill proper. The next phase investigates "the nature and extent" of contamination from OU 7, which has been interpreted as defining any contamination that may have migrated outside the landfill boundaries. These phases are defined in Attachment 2, Section I.B.11.b of the IAG.

2. RCRA Subpart G Part 265.111 (b) requires closure performance standard that "Controls, minimizes, or eliminates (contamination) to the extent necessary to protect human health and the environment". This corresponds to equivalent guidance from the Colorado Hazardous Waste Act (CHWA). Compliance to this requirement is demonstrated by development of a risk assessment that defines the risk from OU 7 so that controls can be established to mitigate any identified risk. The risk assessment process is divided into two separate assessments since the data necessary to assess risk from all potential pathways (i.e. ground water, air, etc.) is provided by two separate field investigations. The Phase I risk assessment evaluates risk from the "upward pathways" only, as determined by CDH project leads and immediate management at a meeting held 19-August-92 at the CDH offices to scope the OU 7 Phase I effort. The guidance received at this meeting was that direct ingestion, inhalation of re-suspended surface soils and possible volatilized contaminants, and dermal absorption pathways only should be evaluated

for Phase I. Phase II looks at exposure from contaminated groundwater or surface water.

3. Data from the Phase I investigation and risk assessment supports development of an interim measure/interim remedial action (IM/IRA) decision document that proposes an action designed to mitigate risk from the "source and soils" to an acceptable level determined by DOE and the agencies.

4. OU 7 however, is not only driven by the Phase I requirements of the IAG but by closure requirements of the CHWA. EPA and CDH both have recognized that certain closure requirements for OU 7 are "not discretionary". In other words, some closure actions are required regardless of assessed risk. These closure requirements are consistent with EPA guidance for "presumptive remedies", actions demonstrated to minimize risk from landfills. The EPA guidance states that quantitative risk assessments are not required to support these remedies. These remedies include capping, and infiltration minimization consistent with CHWA requirements. These actions are driven by regulations and are not optional or "discretionary". Therefore any interim measures would have to be consistent with these closure requirements and are not driven by the Phase I risk assessment.

5. Because the Phase I investigation must also support closure, field activities identified in the approved work plan have provided significantly more data than that necessary to support analysis of upward pathways only. In fact, the data obtained from the Phase I investigation and coupled with the current site-wide groundwater monitoring network should provide sufficient data to support a significant amount of a risk assessment covering all the potential pathways.

6. The current agency negotiations for OUs 1 and 2 have included negotiations regarding the data evaluation process and the subsequent comparison of site data to background values and identification of contaminants of concern for the Nature and Extent sections and the HHRA sections of the RI/RFI reports. There is a current lack of resolution on

this process has impacted the schedule for OU 7. An EPA letter dated 20-May-93 indicates the lack of resolution of this issue for all OUs other than OUs 1 and 2. The agencies have stated that the current process including the statistical comparisons are unacceptable and DOE guidance has been for OU 7 to pursue the development of the most technically defensible approach for data evaluation and COC identification to present to the agencies.

Proposal.

In light of the facts outlined above, EG&G proposes to enter into negotiations with the regulatory agencies to streamline the IAG process. The above mentioned items, either separately or in combination clearly indicate a need to re-examine the original IAG process to examine the potential for streamlining, schedule acceleration, and cost reduction. The project leads for all parties have indicated a willingness to work together towards this goal. The following actions are proposed:

A. Remove the Phase I risk assessment requirement from the Phase I RFI/RI report deliverables.

Justification.
Risk assessment is not required for the interim measure process or closure since the CHWA requires non-discretionary closure actions and EPA guidance identifies technologies demonstrated to incorporate risk reduction goals. Both drivers assume institutional controls that have previously demonstrated risk reduction. The information that would be derived from the Phase I risk assessment process is no longer necessary to support the IM/IRA process or landfill closure.

Advantages.
Schedule impacts resulting from negotiations with the agencies regarding data evaluation in risk assessment could be minimized and would likely result in minimal impacts to the Phase I milestone schedule.

B. Identify CHWA closure requirements and EPA demonstrated

technologies as the proposed IM/IRA.

Justification.
Closure requirements for the Present Landfill are non-discretionary and therefore will be the technologies implemented for the IM/IRA process. In addition, EPA guidance supports the identified technologies.

Advantages.
Since any interim measures for OU 7 must support CHWA landfill closure requirements regardless of risk and EPA guidance identifies these same technologies, it would be much more cost effective to recognize these technologies and not expend large amounts of resources in the development of an exhaustive IM/IRA decision document. Streamlining this document to identify these mandated technologies would significantly reduce the time and expense of a document that evaluates many technologies against performance criteria in a decision process unnecessary here because the decision is pre-ordained in CHWA requirements and also supported by EPA guidance. Cost savings are estimated at 100K, (a 30% reduction in effort), and 6 months schedule acceleration.

Accelerating the IM/IRA decision document by designing it to be a streamlined proposal for the required closure requirements could be accelerated to begin in FY-93 since it would no longer be dependent on the Phase I risk assessment. This would allow for submittal ahead of the IAG schedule by up to 6 months. This would allow finalization of the document to occur in FY 94 rather than FY 95. The design process could then begin in late FY 94 or FY 95. In addition, construction could be coordinated with the opening of the New Landfill eliminating costs for redundant interim closure activities by Facility Operations.

C. Incorporate a full pathways analysis into the current Phase I RFI/RI subcontract by modifying the field sampling plan and data quality objectives sections of the Phase I Work Plan to support this, thus eliminating the requirement for a Phase II Work Plan.

Justification.
The main concern EPA has expressed during an informal proposal meeting held 8-June-93 centers around halting the Phase I risk assessment process in mid-stream. Halting the process after Phase I to re-start during the Phase II efforts would not be cost effective or optimize current project expertise which would impact schedule.

New "full pathways" milestones would be negotiated with the agencies to alleviate the other EPA concern that no "hammer" would be in place to ensure the risk assessment was completed.

Most of the data and field work necessary to support a full pathways analysis was completed during the Phase I field activities as a result of the incorporation of closure requirements into the current Phase I RFI/RI Work Plan DQOs.

Advantages.
Current project staff would continue risk assessment activities without the impact of the current 2 year shut down resulting from the phased approach. This would eliminate costs resulting from the "ramping up" of another risk assessment team down the road and re-mobilization the field for Phase II resulting in significant re-training costs for field teams estimated at 80K.

Incorporation of a full pathways objective into the Phase I work plan would eliminate the need for a Phase II work plan, reducing project costs by 300K and the schedule by 1 year.

The Phase II RFI/RI report would essentially be the full pathways risk assessment and results of additional "nature and extent" analyses. The report would not be dependent on significant field or analytical efforts. This is estimated to reduce cost by 30 %, or approximately 250K, and accelerate the schedule by 6 months.

A detailed proposal and new baseline schedule will be developed for

submittal to the agencies as negotiation process commences.

None of these proposed actions are thought to impact the primary objective of protecting human health and the environment. In fact, timely implementation of this or a similar action would promote this goal by accelerating actual clean up of OU 7.

Process Improvement Proposal for Operable Unit 11, West Spray Field (OU 11)

Current Condition

1. OU 11 is classified per the IAG as a RCRA lead OU. The implications of this designation are that the Colorado Department of Health (CDH) is the lead regulatory agency and the press by which this OU is investigated has been broken into two separate phases of investigation. The initial phase investigates the nature and extent of contamination within the source and soils. This has been interpreted as the actual field. The next phase investigates the nature and extent of contamination from OU 11, which has been interpreted as defining any contamination that may have migrated outside the boundaries of the West Spray Field. These phases are defined Attachment 2, Section I.B.11.b of the IAG.

2. RCRA Subpart G Part 265.111 (b) requires closure performance standard that controls, minimizes, or eliminates (contamination) to the extent necessary to protect human health and the environment. This corresponds to equivalent guidance from the Colorado Hazardous Waste Act (CHWA). Compliance to this requirement is demonstrated by controls that can be established to mitigate any identified risk. The risk assessment process is divided into two separate assessments since the data necessary to assess risk from all potential pathways (i.e. ground water, air, etc.) is provided by two separate field investigations. The Phase I risk assessment evaluates risk from the upward pathways only, i.e. exposure from air transport or direct contact. Phase II looks at exposure from contaminated ground water or surface water.

3. Data from the Phase I investigation and risk assessment is used to support development of an Interim Measure/ Interim Remedial Action (IM/IRA) decision document that proposes an action designed to mitigate risk from the source and soils to an acceptable level determined by DOE

and the agencies. The data is further evaluated to determine the need to complete subsequent field sampling activities.

4. The current Field Sampling Plan for OU 11 proposes an extensive sampling grid for test pits and surface soils for Phase I of the investigation and for Phase II specifics to be determined by the Phase I investigation. The Work Plan did not incorporate the results of a rigorous statistical review.

Proposal

In light of the facts outlined above, DOE proposes to enter into negotiations with the agencies to streamline the IAG process for OU 11 by the following actions:

A. Integrate the Phases I and II Field Efforts

Justification

Current and historical data from surficial soils, subsurface soils, and groundwater indicate that any potential contaminants from past practices are at or below background levels. Indications are that any risks from the existing sources at OU 11 do not require implementation of interim measures.

Integration of the phased field efforts would allow for final disposition of this OU without the need for IM/IRA and Phase II processes. The revised scope of the integrated field investigation would support an accelerated final action for OU 11. This would, in effect, allow for earlier implementation of any actions identified as necessary to mitigate risks from OU 11.

Advantages

The advantages of integrating the field efforts are a cost savings to taxpayers with no impact to the ability to protect human health and the

environment, as well as a schedule reduction. Specifically, the savings are estimated to be $150,000 for elimination of the Phase II Work Plan, $80,000 for elimination of Phase II mobilization efforts associated with a second investigation, and $250,000 for elimination of the Phase II RFI/RI report. Schedule reduction will amount to up to two years.

B. Revise Phase I Field Sampling Plan

Justification
Evaluation of historical analytical data indicates a potential for a reduction of analytical samples necessary to support OU 11 closure. This revised FSP will be submitted to the agencies for approval.

Advantages
Any reduction in scope would result in significant cost savings as well as accelerated schedule. The reduction would be one which does not affect the ability to assess risk to human health and the environment.

C. Eliminate Interim Measures/Interim Remedial Action (IM/IRA) Decision Document

Justification
An integrated field effort would eliminate the need for interim measures by providing the data neccessary to support actions associated with the final disposition of OU 11. Therefore, no IM/IRA Decision Document will be neccessary.

Advantages
The IM/IRA decision document could be eliminated for a cost savings of $300,000 and a schedule reduction of 12 to 18 months.